

APPLICATION FOR PATENT 1219.02

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TITLE:

SYSTEM FOR PRODUCT SELECTION

CERTIFICATION OF MAILING UNDER 37 C.F.R. 1.10

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CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to copending U.S. Patent Application Serial No. 60/436,116, which is incorporated by reference herein.

FIELD OF THE INVENTION

5 [0002] The present invention relates to a system for product selection at a location.

BACKGROUND OF THE INVENTION

[0003] Current methods for selecting objects at warehouses are slow, and subject to error. Selectors or pickers who are responsible for gathering items in a warehouse tend to make mistakes in reading the orders, selecting the correct object, the correct quantity of objects or generally being too slow.

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[0004] A need has existed to overcome the above problems, efficiently and economically.

SUMMARY OF THE INVENTION

[0005] The invention satisfies the needs in the prior art by providing a system for product selection at a location.

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[0006] The invention is a wearable mobile computer with memory and a processor, a bar code reader, and a viewing and input component. The invention also has an audio output device and audio input device in communication with the wearable mobile computer, text-to-speech software, voice recognition software, order filling applications software, a printer and radio frequency identification (RFID) reader.

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[0007] The wearable mobile computer is further adapted to facilitate communication between the order systems server and a user. The orders system server is, in turn, adapted for communication between the wearable mobile computer and at least one external computer system.

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BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The present invention will be explained in greater detail with reference to the appended figures, in which:

5 [0009] FIG 1 is a diagram of the wearable mobile computer and accessories used in the inventive system.

[00010] FIG 2 is a diagram of the overall system for order selecting.

[00011] FIG 3 is a top view of the wearable mobile computer with integral audio output device.

10 [00012] FIG 4 is a view of the wearable mobile computer for use for order selecting with wireless tactile input device.

[00013] FIG 5 is a representation of the wireless wearable mobile computer embodiment wherein the entire system is wireless.

[00014] The present invention is detailed below with reference to the listed Figures.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

15 [00015] Before explaining the present invention in detail, it is to be understood that the invention is not limited to the particular embodiments and that it can be practiced or carried out in various ways.

[00016] The invention relates to a system for product selection at a location comprising: a wearable mobile computer (10) with memory and a processor, a bar code reader (11) in communication with the wearable mobile computer (10), a viewing and input component (100), an audio output device(13), and an audio input device (31) in communication with the wearable mobile computer, text-to-speech software (15), voice recognition software (16), applications software (17) residing in the memory; a printer (33) and a radio frequency identification (RFID) reader (18) in communication with the

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wearable mobile computer, and wherein the wearable mobile computer is further adapted for communication, as shown in Figure 1.

[00017] A typical mobile computer usable within the scope of this invention would be a handheld computer, such as PDT8146-D4BA30WW or PDT8146-T4BA30WW available from Symbol Technologies. The barcode scanner can be a scanner that is part of the mobile computer or a wireless scanner, CRS-1-20000-00 or wireless Bluetooth ring scanner available from Symbol Technologies. A typical audio output device and audio input device could be a headset, such as the VR-3344 headset, single ear available from Knowles Acoustics. The mobile computer is preferably wearable, such as with a holder part no. 11-53814-01 also available from Symbol Technologies. The voice recognition software can be Speech2Go Software or Vocom 3200 both available from ScanSoft, Incorporated or Mobile Conversay MCSDK from Conversational Computing Corporation. The text-to-speech software can be Real Speak Solo Software from ScanSoft, Incorporated. The wireless communication radio is a Bluetooth connection kit consisting of the CompactFlash I/O Bluetooth Card, Type I provided by Socket Communications. The communication software that would enable the handheld computer to communicate with the host server in a wireless mode would be the Spectrum objects available from Symbol Technologies, Inc. Printers usable in this invention would be the wireless QL320 or QL420 Bluetooth Printer from Zebra Technologies, Inc.

[00018] The viewing and input component (100) consists of a member of the group: a display (12) integral with the wearable mobile computer and a tactile input device (14) in communication with the wearable mobile computer; a display screen (12) that is a touch screen in communication with the wearable mobile computer, and combinations thereof.

[00019] Figure 2 shows a diagram of the overall system for order selecting, wherein the wearable mobile computer (10) is further adapted for communications

between an order systems server (19), a user (20), and an order system that is adapted for communications between the wearable mobile computer (10) and at least one external computer system (21).

5 [00020] The wearable mobile computer can be selected from the group: a handheld computer, a PDA, or a notepad computer. The wearable mobile computer can be a PDT8146-D4BA30WW or PDT8146-T4BA30WW provided by Symbol Technologies, Inc. or a HP IPAQ Model 5555 provided by Hewlett Packard.

10 [00021] The display can be a member of the group: LCD display, a plasma display, a monochrome display, or a colored display.

 [00022] Figure 3 shows a top view of the wearable mobile computer with an integral audio output device. The audio output device can be selected from the group: a speaker disposed integrally with the wearable mobile computer (10), a headset with at least one earphone, and an external speaker.

15 [00023] Figure 4 is a view of the wearable mobile computer for order selecting with a tactile input device. In the present invention the tactile input device is a keyboard.

 [00024] In the preferred embodiment three types of software are incorporated in the present invention. The text-to-speech software is adapted to convert text to an audio output. The voice recognition software is adapted to convert an audio signal to text. The order filling applications software is adapted to manage a process for selecting product (14).

25 [00025] The most preferred embodiment of the present invention, the bar code reader, audio output device, tactile input device, and order systems server, RFID reader, order systems server are wireless, and external computer system. Figure 5 shows a representation of the wireless wearable mobile computer embodiment wherein the entire system is wireless.

- 5 [00026] The radio frequency identification (RFID) reader is in wireless communication with the wearable mobile computer, wherein the RFID reader is a wireless reader of radio frequency identification data (23). Figure 5 shows a detailed representation of the wireless wearable mobile computer in wireless communication with a wireless RIFD and radio frequency identification data readable by the RIFD.
- [00027] The order systems sever (19) can be selected from the group: a Personal Computer, a Unix-based™ server, an NT™ server, a Windows-based™ server, or a Linux-based server.
- 10 [00028] The invention has an external computer system that can be selected from the group: a Personal Computer, a Unix-based™ server, a NT™ server, a Windows-based™ server, or a Linux-based server. T he e xternal c omputer system can also be a member of the group: customer order system, a customer warehouse management system, a loader system server, an inventory control system, an orders delivery system server, and combinations thereof. As shown in Figure 6, the external computer system is wirelessly connected to the order systems server in the preferred embodiment of the invention.
- 15 [00029] While this invention has been described with emphasis on the preferred embodiments, it should be understood that within the scope of the appended claims the invention might be practiced other than as specifically described herein.
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